

THE TOWN AND COUNTRY SUNDAY

SPRING AND WINTER SIDE BY SIDE

Why We Have Dirt and Misery and Disease

WHAT CITY PEOPLE BREATHE

By Our Weather Correspondent

There was an extraordinary day in and outside London not long ago. It was a Sunday. The great city was black with fog, and just outside was the glorious sunshine of a mild spring day.

A C.N. reader listening on his wireless in Kent heard a voice in London saying, "I can't see my hand before my face for fog"; a lady who was going to town was surprised to get a telephone message warning her not to go because it was hardly safe to cross the road.

Why should great cities be plagued with fogs like this? It is said that on such a day the soot that hangs over London would weigh 240 tons, and the population of London during these 24 hours would inhale altogether about half a ton of dirt. At South Kensington the dirt in the air was measured, and there were about 11 pounds of dirt in every million cubic yards of air.

What a Fog Really Is

What is it that makes the air so dirty? What is a fog?

The poet Shelley, in his beautiful poem on "The Cloud," reminds us that, although we see the clouds of heaven every day and are so accustomed to them that we hardly notice them, their exquisite shapes and texture, and the wonderful part they play in Nature's economy, can inspire the poet's imagination with thoughts capable of being enshrined in immortal verse. But all clouds are not beautiful, and there is at least one form of cloud which we could well do without; for fog, the bane of the townsman and the dread of the sailor, is only a form of cloud.

The Dew on the Dust

Cloud, mist, and fog are sometimes referred to as being composed of vapour, but this is a mistake, for the vapour of water, millions of tons of which are present in the air, is transparent like the air itself. It is not until the vapour is condensed into actual drops of water that it becomes visible, and so prevents us from seeing properly. The vapour in the air is condensed when the air is cooled below a certain temperature—which is known as the dew-point temperature, because at this stage of cooling dew is deposited.

Now, a curious fact is that water-vapour cannot condense from the air unless it has something to form upon. In the case of dew it forms on the ground, the stems and leaves of plants, or on buildings, which become coated with moisture; but fog, mist, and cloud are caused by dew condensing on the dust which floats in the air.

Evil of Smoky Air

The air is full of tiny specks of dust. These are usually invisible, except in very strong light, like a sunbeam, when they can be seen with the naked eye as they reflect the light shining on them; but when they are damp they absorb light, and thus make the air opaque.

There is always enough dust in the air to allow a mist to form if water is condensed, though the amount varies a great deal. It is greatest in smoky air, smoke being largely composed of dust. It has been computed that a single puff of cigarette smoke contains about 4000 million particles. The air of cities is usually very full of dust because of the

SHACKLETON LOOKS BACK, WONDERING

Is there not something pathetic in these lines today? They were written by our lost explorer, Sir Ernest Shackleton, now on his last Quest.

We have sailed from your farthest West, that is bounded by fire and snow,

We have pierced to your farthest East, till stopped by the hard-set floe.

We have steamed by your wave-worn caverns: dim, blue, mysterious halls.

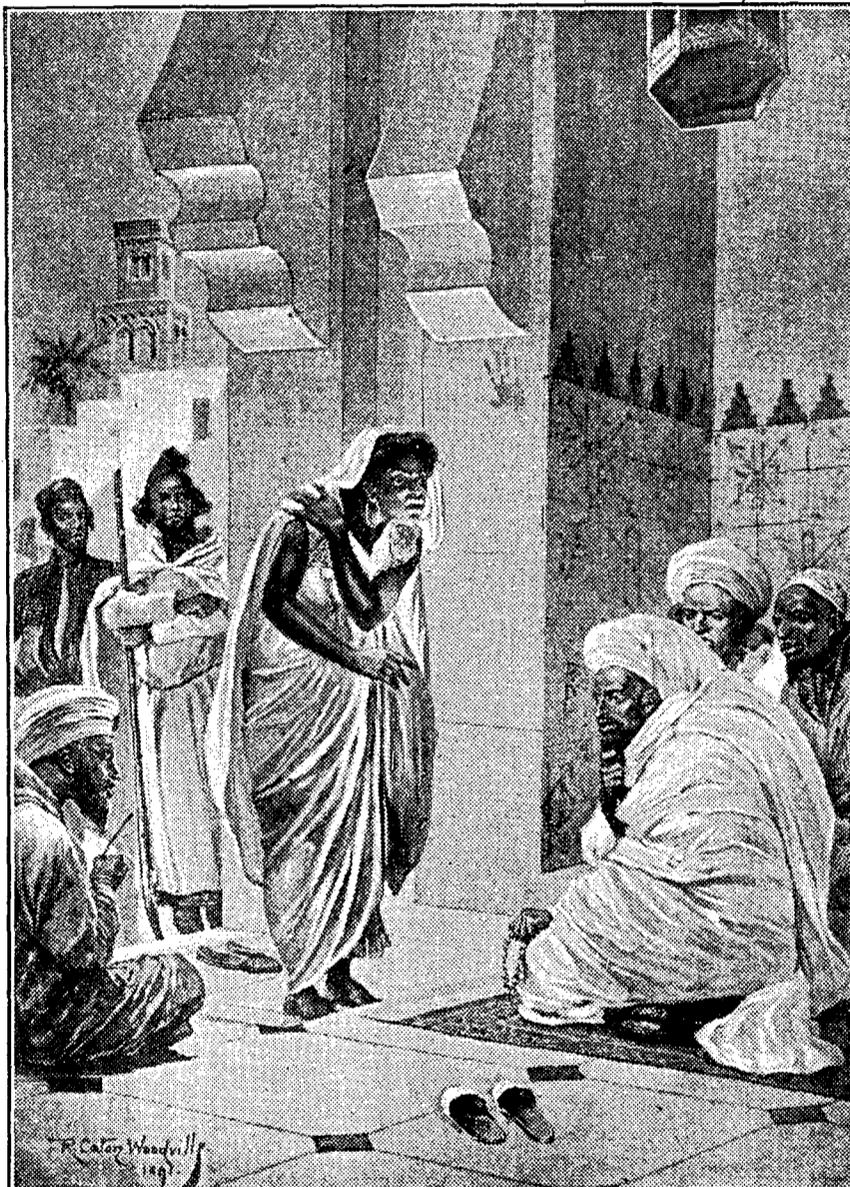
We have risen above your surface, we have sounded along your walls,

And above that rolling surface we have strained our eyes to see.

But league upon league of whiteness was all that there seem'd to be.

Ah! what is the secret you're keeping, to the southward beyond our ken?

SHALL THESE THINGS COME BACK?



Travellers in Abyssinia have been shocked to find that the country is slipping back and that traffic in slaves is being carried on. One traveller has seen a procession of ten thousand unfortunate captives going to such a slave market as we see here, though our picture is from Morocco. See next column.

Continued from the previous column

enormous quantities of smoke and soot discharged from chimneys.

Mist is only a cloud near the ground, and the chief difference between mist and fog is that in a fog there are more dust-particles. In a town fog, such as London experienced the other day, the smoke particles contain not only carbon, which is comparatively clean when pure, but a great deal of oily deposit from the tar in the coal, and this not only makes the fog denser, but, by preventing the moisture from evaporating again, makes it much more persistent.

Besides the fogs of cities, which are almost entirely caused by smoke, there are fogs at sea, caused by the cooling of the damp air over the water as it mixes with colder currents. Thus, off the coast of Newfoundland, when the moist air from the Atlantic meets with cold Polar winds, dense and persistent fogs are

formed, which become a great danger to ships bound for Canadian ports. These sea fogs have often sharply-defined limits, so that a ship may sometimes have its stern in bright sunshine while the bows are enshrouded in dense gloom. Sometimes the fog lies on the sea in a shallow layer, and the masts of a vessel can be seen sticking out above while the hull is completely invisible.

Experiments have been made to find out whether fog can be dissipated by electric discharges, but, although this would be possible, it would probably be extremely costly. While we do not know of any way of preventing sea fogs, there is no doubt whatever that town fogs could easily be almost entirely prevented if we had enough sense to forbid the dirty and wasteful practice of ejecting smoke into the air. This could be done by burning our fuel completely instead of only half burning it.

A NATION SLIPPING BACK

ABYSSINIA AND HER SLAVE MARKETS

Terrible Thing the Great Powers Must Stop

10,000 SLAVES IN A PROCESSION

In the great continent of Africa, apart from the British Union of South Africa, only one country can be said to be governed by the people who live in it. The rest are controlled from without.

The one entirely independent nation is Abyssinia, the ancient Ethiopia, the mountainous inland country around the sources of the Blue Nile.

Of late the civilised world has heard but little of Abyssinia. At the end of 1913 Menelik II, who had reigned 24 years as Emperor, died. Under Menelik, who was a firm ruler with an intelligent conception of his duty to the land, Abyssinia prospered, and was recognised officially by all the leading Powers of the world as a country adopting gradually the methods of civilisation.

Turmoil and War

Then came the Great War, and men's thoughts were turned from the minor States. It was known that there had been turmoil and war after the death of Menelik, and that at last one of his daughters had been chosen as Empress.

Now two residents, with a full knowledge of what is happening in this remote land, have arrived in England, and have furnished the Westminster Gazette with an account of its unhappy condition.

No such horrifying picture has come from out of the darkness of Africa for a quarter of a century. Abyssinia, it must be remembered, is nominally a Christian country. Its religion is that of the ancient Coptic Church.

Civilisation Decaying

Since Menelik's death demoralisation seems to have become universal. The railway had been brought to the capital from the Red Sea; good roads had been made on the main routes of traffic; schools had been established; and attempts had been started to preserve the public health by a purer water supply and better sanitary conditions. Now all these improvements are either swept away or allowed to fall into decay.

But infinitely worse than these backward movements is the fact that slavery in its worst forms has become an institution. The country is a vast slave market, and the sale is kept up by raiding expeditions into the surrounding lands and into the outlying parts of Abyssinia itself.

One of the writers referred to declares that he has seen a convoy of ten thousand slaves being driven in procession to market, and some of these slaves are carried off from lands under the protection of the three great European Powers whose territories surround Abyssinia.

Should Backward Races Rule?

This raiding for the capture of slaves is only made possible by the fact that the Abyssinians are armed with modern weapons, while the tribes are unarmed.

Yet Great Britain, France, and Italy have an agreement that they will not supply Abyssinia with arms. Where, then, do these man-stealers get their weapons and ammunition from?

If only one-tenth of the statements made were true, then the civilised world would have in Abyssinia a problem to which it must address itself unitedly, or the world will be disgraced.

This exposure comes at a time when it may well make people who build up theories of government without knowledge of the ways of men wonder how far self-determination by backward races is a blessing, and whether it may not be a curse.

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